

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 7,124,069 B2  
APPLICATION NO. : 10/630439  
DATED : October 17, 2006  
INVENTOR(S) : Meuris et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column	Line	Description of Error
Title Page (56) Col. 2 (Other Publications)	2	Delete "differentail" and insert -- differential --, therefor.
Title Page (56) pg 2 Col. 1 (Other Publications)	2	Delete "differentail" and insert -- differential --, therefor.
1	12	Delete "entirely;" and insert -- entirety;--, therefor.
1	22	Delete "entirely." and insert -- entirety. --, therefor.
7	13	Delete "suceptibility," and insert -- susceptibility, --, therefor.
9	64	After "vector." delete "the" and insert -- The --, therefor.
12 (Approx.)	27	Delete "sows" and insert -- shows --, therefor.
13	5	After "direction" insert -- . --.
18 (Equation 30)	43 (Approx.)	Delete " $-\nabla \cdot \left( \epsilon \nabla V + \epsilon \frac{\partial A}{\partial t} + \epsilon \frac{\partial \nabla \chi}{\partial t} \right) = \chi$ " and insert -- $-\nabla \cdot \left( \epsilon \nabla V + \epsilon \frac{\partial A}{\partial t} + \epsilon \frac{\partial \nabla \chi}{\partial t} \right) = \rho$ --, therefor.
18 (Equation 31)	46 (Approx.)	Delete " $J - \epsilon \frac{\partial}{\partial t} \left( \nabla V \right)$ " and insert -- $J - \epsilon \frac{\partial}{\partial t} \left( \nabla V \right)$ --, therefor.
18 (Equation 33)	61 (Approx.)	Delete " $\nabla \cdot (\rho \nabla v) = -\rho$ " and insert -- $\nabla \cdot (\epsilon \nabla v) = -\rho$ --, therefor.
18 (Equation 34)	63 (Approx.)	Delete " $J - \epsilon \frac{\partial}{\partial t} \left( \nabla V \right)$ " and insert -- $J - \epsilon \frac{\partial}{\partial t} \left( \nabla V \right)$ --, therefor.

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Column	Line	Description of Error
19	35	Delete "co." and insert -- $\omega$ . --, therefor.
19 (Equation 36)	38 (Approx.)	Delete " $\nabla \cdot (\epsilon \nabla V) = -\rho$ " and insert -- $\nabla \cdot (\epsilon \nabla V) = -\rho$ --, therefor.
19 (Equation 37)	42 (Approx.)	Delete " $J - j\omega \epsilon \nabla V + \epsilon \omega^2 A + \epsilon \omega^2$ " and insert -- $J - j\omega \epsilon \nabla V + \epsilon \omega^2 A + \epsilon \omega^2 \nabla \chi$ --, therefor.
19	66	Delete " $\zeta = \zeta_0 - \zeta e^{i\omega t}$ ." and insert -- $\zeta = \zeta_0 - \zeta e^{i\omega t}$ . --, therefor.
20 (Equation 50)	61 (Approx.)	Delete " $\nabla \cdot (\epsilon \nabla \hat{V}) - \hat{\rho} = 0$ " and insert -- $\nabla \cdot (\epsilon \nabla \hat{V}) - \hat{\rho} = 0$ --, therefor.
20 (Equation 51)	63 (Approx.)	Delete " $j\omega \epsilon \nabla \hat{V} =$ " and insert -- $j\omega \epsilon \nabla \hat{V} =$ --, therefor.
22 (Equation 66)	60	Delete " $\int_{\Delta L_{ij}} \nabla \cdot dS \sim V_j - V_i$ " and insert -- $\int_{\Delta L_o} \Delta V \cdot dl \sim V_j - V_i$ --, therefor.
23 (Equation 67)	13 (Approx.)	Delete " $\sim \frac{A_{ij}}{\mu_o} A_{ij} + \sum_{k=1}^{12} \frac{A_{ij}^{kl}}{\mu_o} A_{kl}$ " and insert -- $\sim \frac{A_{ij}}{\mu_o} A_{ij} + \sum_{k=1}^{12} \frac{A_{ij}^{kl}}{\mu_o} A_{kl}$ --, therefor.
23 (Equation 68)	23 (Approx.)	Delete " $\int_{\Delta V_i} \nabla \cdot (\epsilon \nabla V) dV = \int_{\Delta V_i} \epsilon \nabla V \cdot dS = \sum_{j=1}^6 \oint_{S_j} \frac{V_i - V_j}{k_j}$ " and $\int_{\Delta V_i} \nabla \cdot (\epsilon \nabla V) dV = \int_{\Delta V_i} \epsilon \nabla V \cdot dS = \sum_{j=1}^6 \oint_{S_j} \frac{V_i - V_j}{k_j}$ insert --, therefor.

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23 (Equation 70)	44 (Approx.)	Delete " $(\nabla \cdot (\rho \Delta v))$ " and insert -- $(\nabla \cdot (\varepsilon \nabla v))$ --, therefor.
23 (Equation 73)	61 (Approx.)	Delete " $j\mu_0 \mathbf{S}_{ij} \mathbf{S}_{ij}$ " and insert -- $j\mu_0 \varepsilon_{ij} \mathbf{S}_{ij}$ --, therefor.
23 (Equation 74)	65	Delete " $\mathbf{S}_{ik} \mathbf{e}_{ik}$ " and insert -- $\mathbf{S}_{ik} \mathbf{e}_{ik}$ --, therefor.
24 (Equation 77)	21 (Approx.)	Delete " $-\mathbf{S}_{ij}()$ " and insert -- $-\sigma_{ij}()$ --, therefor.
24 (Equation 80)	53 (Approx.)	Delete " $\frac{J_{ij}}{\mu_{ij}} = -\frac{a}{h_{ij}} B\left(\frac{-\beta_{ij}}{a}\right) c_i + \frac{a}{h_{ij}} B\left(\frac{\beta_{ij}}{a}\right) c_j$ " And Insert -- $\frac{J_{ij}}{\mu_{ij}} = -\frac{a}{h_{ij}} B\left(\frac{-\beta_{ij}}{a}\right) c_i + \frac{a}{h_{ij}} B\left(\frac{\beta_{ij}}{a}\right) c_j$ --,  therefor.
25	66 (Approx.)	Delete "FIG." and insert -- FIGS. --, therefor.
27	64 (Approx.)	Delete "Amperes" and insert -- Ampere's --, therefor.
27	66 (Approx.)	Delete " $=I^1$ ." and insert -- $=I^{(1)}$ --, therefor.
29	17	Delete "Hehnholtz" and insert -- Helmholtz --, therefor.
31	45 (Approx.)	Below "struct cubeListPointer *next;" insert -- }; --.
32 (Equation 94)	39 (Approx.)	Delete " $\nabla \times \nabla \times A_R - \mu_o \varepsilon \omega^2 A_R - \mu_o \varepsilon \omega \nabla$ " insert -- $\nabla \times \nabla \times A_R - \mu_o \varepsilon \omega^2 A_R - \mu_o J_R - \mu_o \varepsilon \omega \nabla$ --, therefor.

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Column	Line	Description of Error
37	38	Delete "subtractions)=as" and insert -- subtractions) as --, therefor.
38	20-21 (Approx.)	Delete " $X^{\sim}O(10^{-14})$ ." and insert -- $X^{\sim}O(10^{-14})$ . --, therefor.
38	54	Delete " $10^{-8}\Omega m^{-8}$ ." and insert -- $10^{-8}\Omega m$ . --, therefor.
39	31 (Approx.)	After "with" delete "I" and insert -- I --, therefor.
39	34 (Approx.)	Delete " $L=[(\mu_0 \ln(b/a))/(2\pi)]$ ." and insert -- $L=[(\mu_0 \ln(b/a))/(2\pi)]$ . --, therefor.
42	9	Delete " <sup>189</sup> ," and insert -- I <sub>89</sub> , --, therefor.
42	17 (Approx.)	Delete " $d_7 x I_{19}$ " and insert -- $d_7 + I_{19}$ --, therefor.
43	26	Delete " <sub>2</sub> n" and insert -- 2 <sup>n</sup> --, therefor.
47	7 (Approx.)	Before "second" delete "the".
50	42 (Approx.)	Delete "succesive" and insert -- successive --, therefor.

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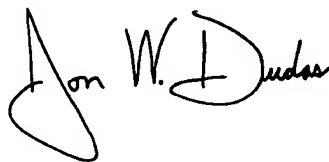
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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column	Line	<u>Description of Error</u>
53	1	In Claim 9, delete "A apparatus" and insert -- An apparatus --, therefor.

Signed and Sealed this

Twenty-ninth Day of January, 2008



JON W. DUDAS  
*Director of the United States Patent and Trademark Office*